

Mineral Industry Surveys

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SILICON IN JULY 2002

In July, domestic production of silicon ferroalloys plus metal, excluding silvery pig iron, was estimated to have decreased by 13.5% compared with the corresponding figure for the previous month, according to the U.S. Geological Survey. Domestic shipments were slightly more than those in June, increasing by about 1%. Total producer stocks were estimated to have increased significantly, from 54,480 metric tons (t) in June to 260,970 t in July. All domestic data for ferrosilicon have been combined to avoid disclosing company proprietary data.

The June trade data included in this report indicated that the volume of silicon metal imports decreased by 49% compared with those of May 2002, owing primarily to decreases in the trade categories of "99.00%-99.99% silicon," and "more than 99.99% silicon." Total ferrosilicon imports, on a gross weight basis, decreased by about 7%, with a substantial increase in the trade category of "55%-80% silicon, over 3% calcium" offset by decreases in the other ferrosilicon trade categories. On a gross weight basis, total ferrosilicon exports decreased by 18%, while silicon metal exports remained essentially the same compared with those in May 2002.

In July, Globe Metallurgical, Inc. reopened its Niagara Falls, NY, plant after closing it in December 2001. The company is thought to be operating both furnaces at the smelter—one producing silicon metal and one ferrosilicon (Ryan's Notes, 2002a). Also in July, Elkem Metals Co. restarted its #14 silicon

furnace at its Alloy, WV, plant. The furnace had been closed since last September. However, Elkem will close the #6 furnace at the Alloy plant through the end of 2002 to install new electrodes (Ryan's Notes, 2002c).

ThyssenKrupp Metallurgie (TKMET) entered into a "take and pay" contract with Australian Silicon Ltd. (ASL), for 70%, or 21,000 t per year, of silicon metal output that would be produced by ASL's planned smelter located in Lithgow, New South Wales. Under the agreement, TKMET would exclusively market ASL's silicon metal in Europe and the Middle East. With the sales and marketing agreement, ASL is expected to raise the capital needed to build the smelter, which the company asserts could be built within 20 months of securing financing (Ryan's Notes, 2002b,d).

References Cited

- Ryan's Notes, 2002a, Globe reopens Niagara Falls: Ryan's Notes, v. 8, no. 30, July 29, p. 3.
Ryan's Notes, 2002b, Slovalco tenders for Si: Ryan's Notes, v. 8, no. 29, July 22, p. 2.
Ryan's Notes, 2002c, Sual changes European Si marketing: Ryan's Notes, v. 8, no. 28, July 15, p. 3.
Ryan's Notes, 2002d, TKMET to sell Australian Silicon's output: Ryan's Notes, v. 8, no. 27, p. 2.

Prices, cents per pound, silicon content

	<u>50% Ferrosilicon¹</u>	<u>75% Ferrosilicon²</u>	<u>Silicon Metal²</u>
July 1	40.0-42.0	30.0-33.0	51.5-54.0
July 10	44.0-46.0	30.5-33.0	51.5-54.0
July 17	44.0-46.0	32.5-34.0	51.5-54.0
July 24	44.0-46.0	32.5-34.0	51.5-54.0
July 31	44.0-46.0	33.0-35.0	52.0-54.0

¹Source: Ryan's Notes, North American transaction price.

²Source: Platt's Metals Week, dealer import price.

TABLE 1
U.S. PRODUCTION, SHIPMENTS, AND PRODUCER STOCKS OF SILICON ALLOYS AND METAL IN 2002 1/ 2/ 3/

(Metric tons)

Material	Gross production 4/		Net shipments		Stocks, July 31
	July	Year to date	July	Year to date	
Ferrosilicon:					
All grades 5/ 6/	18,600	152,000	18,700	125,000	256,000
Silicon metal:					
Excludes semiconductor grades	8,590	67,300	8,740	60,600	4,970

1/ Data are rounded to no more than three significant digits.

2/ Includes U.S. Geological Survey estimates.

3/ Data for silvery pig iron (less than 25% silicon) withheld to avoid disclosing company proprietary data.

4/ Includes in-plant consumption, as in production of magnesium ferrosilicon and other miscellaneous alloys.

5/ Ferrosilicon categories were aggregated to avoid disclosing company proprietary data.

6/ Includes miscellaneous silicon alloys.

TABLE 2
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN JUNE 2002 1/ 2/

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
More than 55% silicon:						
Canada	404	242	\$274,000	2,320	1,390	\$1,590,000
Malaysia	11	8	18,200	27	21	45,600
Mexico	29	17	29,300	265	170	239,000
Trinidad and Tobago	11	6	8,590	11	6	8,590
Total	455	275	331,000	2,620	1,590	1,880,000
Other ferrosilicon:						
Australia	41	13	39,100	182	70	213,000
Canada	358	179	197,000	2,380	1,190	1,450,000
China	--	--	--	48	24	13,100
Ghana	--	--	--	17	6	6,470
India	--	--	--	23	11	13,800
Italy	--	--	--	33	17	52,600
Japan	--	--	--	336	30	717,000
Korea, Republic of	112	56	135,000	711	355	1,010,000
Malaysia	--	--	--	72	32	85,500
Mexico	33	17	34,200	256	128	300,000
Other (6 countries)	11	5	9,780	70	37	100,000
Total	556	270	415,000	4,130	1,900	3,970,000
Total ferrosilicon	1,010	545	746,000	6,750	3,490	5,850,000
Metal:						
More than 99.99% silicon:						
China	46	XX	1,690,000	225	XX	6,790,000
France	6	XX	171,000	42	XX	1,190,000
Germany	24	XX	1,390,000	156	XX	7,250,000
Italy	10	XX	906,000	60	XX	4,750,000
Japan	333	XX	17,100,000	1,540	XX	77,200,000
Korea, Republic of	28	XX	935,000	228	XX	8,880,000
Malaysia	12	XX	2,000,000	47	XX	9,040,000
Norway	12	XX	518,000	199	XX	5,170,000
Taiwan	12	XX	633,000	57	XX	2,120,000
Ukraine	17	XX	413,000	64	XX	1,590,000
Other (36 countries)	32	XX	2,930,000	163	XX	13,400,000
Total	532	532 e/	28,600,000	2,780	2,780 e/	137,000,000
99.00% - 99.99% silicon:						
Belgium	--	--	--	23	22	32,000
Brazil	--	--	--	40	39	55,900
Denmark	--	--	--	68	68	96,400
Japan	--	--	--	17	17	42,400
Korea, Republic of	--	--	--	20	20	28,600
Mexico	47	46	65,700	179	177	294,000
Nauru	--	--	--	51	51	72,000
Netherlands Antilles	--	--	--	56	56	79,600
Norway	51	51	72,000	198	196	279,000
Sweden	--	--	--	19	19	26,500
Other (9 countries)	14	14	19,700	58	57	115,000
Total	112	111	157,000	729	723	1,120,000

See footnotes at end of table.

TABLE 2--Continued
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN JUNE 2002 1/ 2/

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal--Continued:						
Other silicon:						
Canada	80	77	\$104,000	631	613	\$794,000
Germany	7	7	8,840	189	184	249,000
Hong Kong	40	39	53,400	163	159	220,000
Japan	251	244	417,000	596	578	872,000
Korea, Republic of	11	11	60,600	216	210	434,000
Malaysia	--	--	--	52	51	68,700
Mexico	78	76	101,000	573	556	1,050,000
Philippines	113	110	149,000	243	236	645,000
Taiwan	17	17	22,800	195	189	264,000
United Kingdom	13	12	110,000	104	101	328,000
Other (17 countries)	98	95	306,000	304	295	752,000
Total	709	688	1,330,000	3,270	3,170	5,680,000
Total silicon metal	1,350	1,330	30,100,000	6,780	6,680	144,000,000

e/ Estimated. XX Not applicable. -- Zero.

1/ Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top ten countries.

2/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN JUNE 2002 1/ 2/

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
55% - 80% silicon, over 3% Ca:						
Argentina	29	17	\$34,400	57	34	\$74,100
Brazil	245	116 3/	241,000	518	247 3/	526,000
Canada	--	--	--	21	15	6,580
Germany	--	--	--	40	12	40,500
Norway	--	--	--	6	4	10,500
United Kingdom	--	--	--	11	7	58,100
Total	274	133	275,000	651	319	716,000
55% - 80% silicon, Other:						
Brazil	15	11	29,600	334	250	287,000
Canada	622	465	442,000	3,870	2,910	2,520,000
China	100	75	48,500	1,020	765	509,000
France	365	238	639,000	1,540	1,000	2,700,000
Iceland	--	--	--	12,300	9,190	5,560,000
Kazakhstan	4,820	3,670	1,920,000	18,300	13,900	7,100,000
Norway	392	293	499,000	1,890	1,410	2,500,000
South Africa	--	--	--	3,240	2,360	1,470,000
Ukraine	7,910	5,930	3,170,000	14,000	10,500	5,850,000
Venezuela	1,960	1,470	1,060,000	21,200	15,900	11,300,000
Other (4 countries)	78	57	220,000	521	230	1,030,000
Total	16,300	12,200	8,040,000	78,200	58,500	40,800,000
More than 90% silicon:						
China	--	--	--	44	2,380 3/	220,000
Magnesium ferrosilicon:						
Argentina	57	27	38,700	522	220	337,000
Brazil	290	131	192,000	1,710	776	1,140,000
Canada	77	37	100,000	441	212	438,000
China	20	9	26,500	2,650	1,230	1,830,000
France	20	9	22,200	20	9	22,200
Germany	1	1	2,420	3	1	9,150
Japan	31	13	70,100	125	60	271,000
Norway	656	294	551,000	4,620	2,110	3,790,000
Slovenia	--	--	--	4	1	6,480
Ukraine	--	--	--	18	9	7,970
Total	1,150	520	1,000,000	10,100	4,640	7,850,000

See footnotes at end of table.

TABLE 3--Continued
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN JUNE 2002 1/ 2/

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon--Continued:						
Other ferrosilicon:						
Brazil	20	19	\$34,300	20	19	\$34,300
Canada	842	306	686,000	5,470	1,970	4,130,000
China	--	--	--	20	10	42,400
France	--	--	--	4	1	9,060
Norway	--	--	--	23	4	18,100
Ukraine	--	--	--	119	58	54,700
Total	862	325	721,000	5,660	2,060	4,290,000
Total ferrosilicon	18,500	13,200	10,000,000	94,700	67,900	53,900,000
Metal:						
More than 99.99% silicon:						
China	(4/)	XX	24,400	9	XX	185,000
Cyprus	54	XX	80,000	54	XX	80,000
Denmark	1	XX	165,000	2	XX	413,000
Germany	49	XX	4,230,000	206	XX	26,900,000
Italy	2	XX	250,000	164	XX	6,630,000
Japan	28	XX	784,000	237	XX	7,360,000
Korea, Republic of	5	XX	125,000	56	XX	926,000
Poland	(4/)	XX	3,920	3	XX	16,500
Spain	2	XX	5,280	9	XX	26,700
Taiwan	--	XX	--	4	XX	83,100
Other (6 countries)	(4/)	XX	113,000	3	XX	345,000
Total	140	140 e/	5,790,000	746	746 e/	42,900,000
99.00% - 99.99% silicon:						
Argentina	400	397	378,000	2,900	2,880	2,750,000
Brazil	2,110	2,100	2,820,000	14,300	14,200	18,100,000
Canada	735	730	886,000	5,140	5,100	6,190,000
China	40	40	30,000	140	139	111,000
Korea, Republic of	180	179	175,000	180	179	175,000
Norway	440	437	740,000	2,760	2,740	4,050,000
Russia	718	713	809,000	9,670	9,590	10,500,000
South Africa	1,090	1,080	1,270,000	9,320	9,250	10,500,000
Spain	--	--	--	1,480	1,470	1,420,000
Ukraine	20	20	16,100	62	61	48,200
Other (4 countries)	180	179	187,000	206	204	348,000
Total	5,910	5,870	7,310,000	46,200	45,800	54,200,000
Other silicon:						
Belgium	--	--	--	44	4	47,500
Canada	269	264	314,000	1,070	1,050	1,280,000
China	180	177	131,000	1,960	1,930	1,360,000
Germany	60	59	50,800	100	98	84,300
Italy	--	--	--	25	15	48,400
Norway	18	18	53,000	2,570	2,510	2,280,000
Russia	2,800	2,750	2,320,000	15,600	15,300	12,700,000
South Africa	718	707	691,000	4,700	4,620	4,420,000
Ukraine	--	--	--	21	21	16,100
United Arab Emirates	40	39	31,900	318	314	269,000
Other (4 countries)	--	--	--	11	1	18,800
Total	4,080	4,010	3,600,000	26,400	25,900	22,600,000
Total silicon metal	10,100	10,000	16,700,000	73,300	72,500	120,000,000

e/ Estimated. XX Not applicable. -- Zero.

1/ Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top ten countries.

2/ Data are rounded to no more than three significant digits; may not add to totals shown.

3/ All or part of these data have been referred to the U.S. Census Bureau for verification.

4/ Less than 1/2 unit.

Source: U.S. Census Bureau.